## Physics 137A Section 1: Problem Set #2 Due: 5PM Friday Feb 7 in 2<sup>nd</sup> floor LeConte-Birge Cross-Over

## **Suggested Reading for this Week:**

- This material is covered in Griffiths Chapter 1
- Another view of the same material can be found in Bransden and Joachain sections 2.1 through 2.3

## **Homework Problems:**

- 1. Griffiths Problem 1.12
- 2. Griffiths Problem 2.4
- 3. Griffiths Problem 2.5
- 4. Griffiths Problem 2.6
- 5. Griffiths Problem 2.7
- 6. Griffiths Problem 2.8
- 7. Griffiths Problem 2.9 Note: this problem illustrates a very important concept: the "collapse of the wave function." The act of *measuring* the energy forces the wave function into an eigenstate of energy. If you are interested in the philosophical implications of this, take a look at section A.3 of Griffiths.
- 8. Griffiths Problem 2.10